

WRESTLING WITH SCIENCE: FUNDER DIALOGUES
CGBD 2006 Annual Meeting Agenda
Stanley Hotel, Estes Park, Colorado

Wednesday, June 21, 2006

1:00 - 2:15 pm	Opening Luncheon and Address “Science, Conservation, and the Human Condition: What Do We Know? What Should We Do?” John Holdren, <i>President, American Assoc. for the Advancement of Science</i> <i>Director, The Woods Hole Research Center</i> <i>Teresa and John Heinz Professor of Environmental Policy</i> <i>Kennedy School of Government and Department of Earth and</i> <i>Planetary Sciences, Harvard University</i>	Concert Hall
2:15 - 2:30 pm	Break	
2:30 - 2:45 pm	Cross the Line Jen Sokolove, <i>Compton Foundation</i>	
2:45 - 3:30 pm	Perspectives on the Role of Science in Conservation Moderator: Ken Wilson, <i>Christensen Fund</i> Opening Stories: Angel Braestrup, <i>Munson Foundation</i> ; Imani Fairweather-Morrison, <i>Oak Foundation</i> ; Jim Owens, <i>Brainerd Foundation</i> , Hooper Brooks, <i>Surdna</i> <i>Foundation</i>	
3:30 – 4:15 pm	Group Work: Breakout Discussions	
4:15 – 4:30 pm	Data Report from Science Investment Survey Gary Tabor, <i>Wilburforce Foundation</i>	
4:30 - 4:45 pm	Break	
4:45 - 6:15 pm	Problems with Using Science to Design Program Initiatives Moderator: Gary Tabor, <i>Wilburforce</i> Discussant: Jennie Curtis, <i>Garfield Foundation</i> How funders in the CGBD community use science to achieve their programmatic outcomes varies enormously. On one end of the continuum, some funders employ science as a compass for program direction; on the other end, science offers little to a perceived social or political challenge. This discussion will examine foundation use of science along this continuum. The goal of the session is to delineate funder experience with the opportunities and challenges of employing science information. Science & Policy/Advocacy - Hal Harvey, <i>Hewlett Foundation</i> ; Using Science to Leverage Change- Denise Joines, <i>Wilburforce Foundation</i> ; Using Scenarios with Stakeholders - Walt Reid, <i>Packard Foundation</i> ; Relying More on Social/Political Context - Jon Jensen, <i>Gund Foundation</i>	
6:15 - 7:15 pm	Reception	MacGregor Room

- 7:15 - 7:30 pm** **Welcome to Colorado** *MacGregor Room*
Timothy E. Wirth, *President, United Nations Foundation*
- 7:30 - 9:00 pm** **Opening Dinner and Address**
“History, Culture, Science, Power: Creating a New Conservation Science to Give Roots and Feet to the Conservation Movement”
Taghi Farvar, *Chair, IUCN Commission on Environmental, Economic & Social Policy*
Chair, CENESTA, Center for Sustainable Development, Tehran, Iran

Thursday, June 22, 2006

- 7:00 - 8:15 am** **Breakfast** *Concert Hall*
Function Tables for a Discussion of Common Issues
An opportunity for Trustees, Executive Directors, Program Directors, Program Officers, and Program Associates to explore issues related to their respective roles
- 8:30 - 10:00 am** **Interventions in the Institution and Fabric of Science**
Moderator: Rhea Suh, *Hewlett Foundation* Discussant: Mark Shaffer, *Doris Duke Foundation*
- The controversies over the application of science (or lack thereof) in the greater policy world justifiably garner big headlines. However, the internal dynamics shaping the scientific world are just as intriguing. The challenge within science today is a conundrum: in some ways, the field seems to remain trapped in an impenetrable academic fortress built upon increasingly irrelevant politics and doctrine. The inability of science to be understandable, accessible, and relevant all continue to be significant barriers. At the same time, there has been a shift in academia towards particular types of applied research, a shift that has been primarily facilitated by for-profit funders. This “corporatization” is not only having broad effects on focus of science and on the type of scientists we are training, but it also re-opens the long-standing debate over bias and scientific credibility. In conversation with our colleagues, we flesh out these conundrums as we explore the state of the modern scientific community.
- Funding Research- Margaret Bowman, *Pew Charitable Trusts*; Communicating Science- Chuck Savitt, *Tides Foundation*; Engaging with the Academy- Marty Kaplan, *Kann Rasmussen Foundation*; Building Science Capacity in Regions it Doesn’t Exist- Steve Cornelius, *MacArthur Foundation*
- 10:00 - 10:30 am** **Break**
- 10:30am - 12:00 pm** **Different Ways of Knowing and Integrating the Sciences**
Moderator: Mike Wright, *MacArthur Foundation* Discussant: Lori Udall, *Sacharuna Foundation*

Many conservationists say they are grounded in and guided by “credible scientific knowledge” meaning objective, quantitative, conventional natural science. But others argue that ecological awareness can only come from combining rational knowledge with intuitive wisdom grounded in the nonlinear nature of our environment and founded in more traditional cultures. Will foundations be more credible if they base their grants on the science of ecology defined as the branch of biology concerned with the interrelationships in the biophysical environment and within the domain of Western science? Or will they be more successful if they take a holistic approach to ecology defined as an ecosystem of interconnected relationships in which humans are part of the web of life and including values, beliefs and ethics?

This session will look at the power and limitations of different ways of knowing, based on natural and social sciences, art, traditional knowledge and community engagement.

Integrating Indigenous and Western Science- Erika Zaveleta, *Christensen Fund*; Social and Ecological Systems, Integrating Science for Change-Bruce Lourie, *Ivey Foundation*; Community Science - David Hulse, *MacArthur Foundation*; Bernd Cordes, *Packard Foundation*.

12:00 - 2:00 pm

Remarks and Lunch

“Solutions Science in Academia: Green Chemistry and What it Offers Biodiversity”
Terry Collins, *Thomas Lord Professor of Chemistry, Carnegie Mellon University*;
Director of the Institute for Green Oxidation Chemistry
Deboshri Banerjee, *Graduate Student, Carnegie Mellon University*

2:00 - 6:30 pm

A Choice of Three Field Trips

Biodiversity Below the Surface – Life in the Mud and Dirt

On this trip we will consider how biodiversity in soils, freshwater and the underlying sediments are sampled. Participants will sample soil, lake and stream invertebrates in Rocky Mountain National Park. In this setting, we will investigate how sediments, freshwater and soils form a continuum of habitat, each directly and indirectly influencing the dynamics of the others. We will also use Rocky Mountain National Park as a backdrop for a discussion with park staff on how land and other natural resource management issues are inextricably linked to societal activities and drivers of change.

Urbanization and the Threat to Biodiversity on Colorado’s Front Range

The Colorado Front Range, defined as the area where the Great Plains meet the Rocky Mountains, is one of the most biologically rich regions in North America. It is also a region experiencing the highest human population growth in the nation. This juxtaposition of high biodiversity, intense human pressures, and innovative open space management creates an ideal environment for both study and integration of conservation science, policy, and management. This field trip will focus on the nationally-recognized Open Space system of the City and County of Boulder, and will emphasize integrating science and conservation in urbanizing landscapes. We will explore the grasslands of Boulder County to examine three of the most current and controversial topics in conservation science and management:

- Invasive species and urbanization, with links to global climate change
- Conservation medicine: links between land use change, wildlife diseases, and human health

- Development and management of open space networks that integrate conservation of biodiversity and human activities on public lands

Global Warming and the Alpine Tundra

Come see research on the likely impacts of climate change on the Alpine Tundra and enjoy an invigorating half-hour walk from 11,000' to 11,500'. Dr. Bill Bowman, University of Colorado-Boulder has been leading research that looks at responses in alpine tundra plants to changes in snowfall (and temperature), among other metrics.

We will visit a snow-fence experiment that simulates both increased and decreased snowfall on the Niwot Ridge, located approximately 50 km south of Estes Park. There is a cirque glacier (Arikaree Glacier), extensive alpine tundra, a variety of glacial landforms, glacial lakes and moraines, cirques and talus slopes, patterned ground, and permafrost. The research area is bounded on the west by the Continental Divide, with runoff on the two sides being destined for the Colorado and Mississippi Rivers. Time allowing, we will visit a full-canopy eddy flux tower in the subalpine forest that measures forest-atmosphere CO₂ flux and the climate controls on that flux.

7:00 - 8:30 pm Dinner *Concert Hall*

8:30 – 10:00 pm Music and Tributes

Friday, June 23, 2006

7:00 - 8:15 am Breakfast *Concert Hall*

**8:30 - 10:30 am Challenges in Program Strategy and Program Evaluation-Feedback Loop
Always the Twain Shall Meet**

Moderator: Jen Sokolove, *Compton Foundation* Discussant Jenny Russell, *Merck Family Fund*

Can science lead the way and tell us where we've come? In theory, using a science-informed priority setting process should enable funders to be more effective in achieving their conservation or mission goals. Research would seem to help funders determine how best to use their limited resources -- the proverbial "more bang for the buck." If this is so, then is the same research helpful in program planning as well as program evaluation? Some of the challenge lies in the definition of what type of research is needed—ecological, social science, economic? Regardless of definition, most funders use some type of research in their programmatic work. We will discuss the various research approaches that our community employs.

Common Standards/Measures - Michael Webster, *Gordon and Betty Moore Foundation*; Science for Redesigning Program Strategy - Sergio Knaebel, *Packard Foundation*; Carlos Carroll, *Wilburforce Foundation*; Bruz Clark, *Lyndhurst Foundation*

- 10:30 - 10:45 am** **Summary and Going Forward**
Ken Wilson, *Christensen Fund*
- 10:45 - 11:30 am** **Business Meeting & Reports from Working Group Co-Chairs**
CGBD Board Vice President, Leslie Harroun, *Oak Foundation*
CGBD Board Treasurer, Kathleen Welch, *Pew Charitable Trusts*
Climate & Energy, Stewart Hudson, *Tremaine Foundation*
Marine Conservation, Angel Braestrup, *Munson Foundation* & Beto Bedolfe, *Marisla Foundation*
Land & Freshwater Conservation, Eric Jones, *Flintridge Foundation*
Health & Environmental Funders Network, HEFN
- 11:30 am** **Adjourn - Box Lunches Distributed**

Consultative Group on Biological Diversity Annual Meeting

June 21-23, 2006
Estes Park, CO

Speaker Biographies

DEBOSHRI BANERJEE is a senior graduate student in the Department of Chemistry at Carnegie Mellon University, Pittsburgh, PA. She is working with Professor Terrence J. Collins in the Institute for Green Oxidation Chemistry for her PhD. Her research primarily involves the development of an environmentally friendly system based on TAML/peroxide technology that can deactivate surrogates of biological warfare agents, infectious pathogens and chemical contaminants in water. Ms. Banerjee earned her B.Sc (Honours) in Chemistry from Presidency College, Kolkata, India in 1999, and her M.Sc from Indian Institute of Technology, Kanpur, in 2001 prior to joining Carnegie Mellon University. She has been awarded the Teresa Heinz Scholars for Environmental Research award in 2005.

TERRY COLLINS is the Thomas Lord Professor of Chemistry at Carnegie Mellon University where he directs the Institute for Green Oxidation Chemistry. He is also an Honorary Professor at the University of Auckland, New Zealand. Professor Collins earned his B.Sc. (1974), M.Sc. (1975) and Ph.D. (1978) degrees from the University of Auckland where his graduate advisor was Warren R. Roper. He was a postdoctoral fellow at Stanford University with Jim Collman, 1978-80. Among his many research awards is the 1998 US Presidential Green Chemistry Challenge Award. Professor Collins has written and lectured widely on the possibilities before chemists to develop vibrant new economies to promote sustainability. His research program is focused on greening oxidation technologies by designing nontoxic catalysts for activating the natural oxidants, hydrogen peroxide and oxygen, for nonpolluting oxidations. He has published over 100 articles and is the principal inventor on over 100 patents.

Born in 1942, **TAGHI FARVAR** is the son of an indigenous nomadic tribe of nomadic pastoralists in Iranian Azerbaijan. He is an interdisciplinary scientist and an activist leader for the conservation of nature and the customary rights to natural resources of indigenous peoples and traditional communities and to sustainable livelihoods defined by themselves. He has lived and worked in the Americas, Asia, Africa and Europe.

Based in CENESTA—Centre for Sustainable Development in Iran, Taghi is an IUCN Councillor and the Chair of its Commission on Environmental, Economic and Social Policy.

Under the renowned scientist and advocate of the social responsibility of science—Barry Commoner—Taghi obtained a doctorate in ecology and social sciences from Washington University, but owes his real education to the Elders of indigenous peoples and traditional communities with whom he has lived and worked. He has published extensively on community and collaborative management of natural resources and conservation with equity.

JOHN P. HOLDREN is the Teresa and John Heinz Professor of Environmental Policy and Director of the Program on Science, Technology, and Public Policy in the Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University. He is also Professor of Environmental Science and Policy in Harvard's Department of Earth and Planetary Sciences and Director of the Woods Hole Research Center. Trained in engineering and plasma physics at MIT and Stanford, Dr. Holdren co-founded in 1973 and co-led for 23 years the interdisciplinary graduate program in energy and resources at the University of California, Berkeley. His work has focused on causes and consequences of global environmental change, analysis of energy technologies and policies, ways to reduce the dangers from nuclear weapons and materials, and the interaction of content and process in science and technology policy. He is a member of the National Academy of Sciences (NAS), the National Academy of

Engineering (NAE), the American Academy of Arts and Sciences, and the Council on Foreign Relations, and in February 2006 he became the President of the American Association for the Advancement of Science. From 2002 until the present he has also been Co-Chair of the foundation-funded, bipartisan National Commission on Energy Policy.

Dr. Holdren served as a member of President Clinton's Committee of Advisors on Science and Technology from 1994 to 2001 and in that capacity led studies requested by the President on protection of nuclear-explosive materials, the U.S. fusion energy program, U.S. energy R&D strategy for the challenges of the 21st century, and international cooperation on energy. He was a member of the Board of Trustees of the MacArthur Foundation from 1991 to 2005 and Chair of the Committee on International Security and Arms Control of the National Academy of Sciences from 1993 through 2004. He has been the recipient of a MacArthur Prize Fellowship (1981-86), the Tyler Prize for Environment (2000), and the John Heinz Prize for Public Policy (2001), among many other awards. In 1995 he gave the acceptance speech for the Nobel Peace Prize on behalf of the Pugwash Conference on Science and World Affairs (which he served as Chair of the Executive Committee from 1987 to 1997).

TIMOTHY E. WIRTH is the President of the United Nations Foundation and Better World Fund. These organizations were founded in 1998 through a major financial commitment from R.E. Turner to support and strengthen the work of the United Nations.

Wirth began his political career as a White House Fellow under President Lyndon Johnson and was Deputy Assistant Secretary for Education in the Nixon Administration. In 1970, Wirth returned to his home state and successfully ran for the U.S. House of Representatives, representing Colorado's 2nd Congressional District from 1975-1987. In the House, he concentrated his efforts in the areas of communications technology and budget policy. In 1986, Wirth was elected to the U.S. Senate where he focused on environmental issues, especially global climate change and population stabilization. Wirth chose not to run for re-election.

Following those two decades of elected politics, Wirth served in the U.S. Department of State as the first Undersecretary for Global Affairs from 1993 to 1997. In this position he coordinated U.S. foreign policy in the areas of refugees, population, environment, science, human rights and narcotics.

As President of the UN Foundation since its inception in early 1998, Wirth has organized and led the formulation of the Foundation's mission and program priorities, which include the environment, women and population, children's health and peace, security and human rights. The Foundation also engages in extensive public advocacy, resource mobilization, and institutional strengthening efforts on behalf of the UN.

Prior to entering politics, Wirth was in private business in Colorado. He is a graduate of Harvard College and holds a PhD from Stanford University. The recipient of numerous awards and honorary degrees, he also served as a member of the Harvard Board of Overseers. Wirth is married to Wren Wirth, the President of the Winslow Foundation; they have two grown children and three grandchildren.